

For Commodore 64 & Apple II Series

ORBYTETM
SOFTWARE

TOLL FREE
1-800-253-2600
In CT 203-621-9361

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For Commodore 64 & Apple II Series

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All titles are available on disk for the Commodore 64, as well as a selection for the Apple II series. A toll-free telephone number is provided for direct customer/dealer assistance and service. Let Orbyte Software work for you!

PRODUCTIVITY

Stock Analyzer

This program provides an organized, efficient method of stock management, giving you the advantage of knowing your stock's performance at any given time.

Stock Analyzer can hold up to 250 various stocks, 25 active at any one time, and maintain up to twelve transactions per stock (dollar amount per transaction to \$999,999.99); number shares per transaction (to 9,999,999). Each stock record contains the company name, purchase date, cost basis (up to \$9,999,999.99), total shares owned (up to 999,999.99), average cost per share (up to \$999.99), stop/loss level (up to \$999.99) and target price (up to \$999.99).

Through simple, time-efficient entry you can maintain and update all vital stock information. Hotline Communications is interfaced with this program to ease the tedium of entering the stock data, and is especially useful if your portfolio contains a number of different stocks. With Hotline, you are able to access most databases including Dow Jones, Compuserve, MCI Mail and The Source. While on-line, the program accepts and reads into memory the daily high, low, closing price and trading volumes of all stocks in your portfolio. This information is displayed on the screen with the option of saving for use with Stock Analyzer.

From this basic data, the program generates automatic calculation of average cost per share, current value, dollar and percentage unrealized capital gain/loss, short or long term position, and split tabulations for each stock. The program also notifies you of stocks that will go long in 30 days, stocks that are not within their preset levels, and stocks that are in a losing position.

Stock Analyzer offers the largest number of stock reports available in any Commodore 64 stock program to date, including; stock performance reports, stock purchase history reports, summary portfolio performance reports, select portfolio performance reports (user-defined), stock redemption summary reports, and a consolidated sales report (for the Schedule D Tax Form). The program provides charts that graphically present the comparison of each stock to the entire portfolio, and generates reports instantly for screen display and printing.

This is the complete analytical program - to be used alone, or in conjunction with Trend Analyzer or Hotline Communications - to assist your investment decisions and help you achieve maximum results from your money.

Sugg. Retail \$59.95

Hotline Communications

Our newest addition to productivity software offers the Commodore owner a whole new dimension in telecommunications; alone as an advanced, effective method of communication, or as a supplement to enhance the capabilities and efficiency of both Stock Analyzer and Trend Analysis.

Using a Commodore compatible modem, Hotline accesses and provides direct communication from one Commodore to another. The program sends (down-loads) and receives (up-loads) data and program code instantly to a maximum of 45 blocks and its bulletin board feature 'posts' and saves on-screen messages sent to you during any time of the day or night.

Hotline provides immediate transmittal of keyed and disk data in addition to information located in word processing files. Hotline even accesses most databases including Dow Jones, Compuserve, The Source and MCI Mail. While on-line, the program accepts and reads into memory information from the database, and displays the data on the screen for scanning and editing with the option of saving. Connect-time is automatically recorded by the program, and optional automatic dialing and autolog-on features are available for further convenience and system sophistication.

Hotline Communications serves alone as a complete, versatile telecommunications package, and also as a time-saving, effective supplement to Stock Analyzer and Trend Analysis.

Sugg. Retail \$79.95

Inventory Control

Inventory Control is a comprehensive inventory management system designed to organize and efficiently maintain your in-coming, out-going and on-hand stock.

Inventory Control can store information on over 1300 individual stock items, from clothing to electronic parts. All information is protected by a password security system. Each item record organizes information on stock category and descriptions, item number and space for a 15 digit part number, minimum and maximum stock quantity, date last updated, supplier, quantity reordered, open purchase order number, reorder due date, quantity open, and oldest back order date.

This program provides time-saving, continuous automatic calculation of on-hand quantity, weighted average cost, and total stock value (up to a maximum value of \$9,999,999.99); notification of stock items that are above or below minimum quantity; and inventory closings at the end of each period based of current costs, average costs or individually set costs, with automatic set-up of items for the new inventory period.

Summaries of automatically compiled reports such as stock values, quantities, audits of current changes and final inventory statements can be reviewed whenever necessary, and Inventory Control's ability to provide instant printouts of all reports on Inventory Accounting, Search or Listing, File Dump, Costed Inventory, Order Action, Close Inventory and Audit Trails gives you hands-on, workable information for conferences and studies.

All this is available on one program outlined by a step-by-step tutorial manual which can be effectively used by any business to employ the accurate and time-saving methods of Inventory Control.

Sugg. Retail \$49.95

Trend Analysis

This program is a tool for the individual investor designed to aid in the identification and selection of potentially sound equity investments.

Trend Analysis maintains up to 40 daily, weekly, monthly or quarterly high, low, closing and volume entries for each of 40 companies per disk, with unlimited storage. This program is interfaced with Hotline Communications for increased efficiency and accuracy in entering stock data. With Hotline, you can connect directly with most databases including Dow Jones, Compuserve, The Source and MCI Mail. While on-line, the program accepts the high, low, closing and trading volume for all stocks

being studied with Trend Analysis. The information is read into memory and simultaneously displayed on the screen.

Balance sheet, price/earnings ratio determinations and the Graham/Dodd price evaluation are three of the seven conservative value-based price valuation methods incorporated in the program to identify potentially bargain-priced stocks. An average of the price valuation methods enables identification of a target purchase price for stocks under consideration.

The program generates excellent graphics for visual comparison of information including: price and volume, point and figure, all seven price valuations, and balance sheet data and ratios for either the same company over a period of up to five years, or up to five companies over a period of one year. Trend Analysis also computes and plots moving averages for stocks with user-indicated origins, and calculates linear regressions for price trends within user-defined ranges. All information is available in hard-copy reports.

When used in conjunction with Stock Analyzer, Trend Analysis can analyze your current portfolio holdings to determine potentially timely sales or transfers; calculate optimal stop/loss and target pricing for inclusion in the Stock Analyzer portfolio data; and prepare hypothetical/experimental portfolios of stock.

This program, used alone or as a supplement to Stock Analyzer or Hotline Communications is a conservative approach to analyzing/selecting stocks as sound investments.

Sugg. Retail \$79.95

COMPUTER PROGRAMMING

Basic, A Tutorial

Basic, A Tutorial is a great way to get started on the right foot. It helps you better understand your Commodore 64 so that you can use it with ease and effectiveness.

Basic, A Tutorial is a MUST for both recent Commodore purchasers and dedicated Commodore owners. It is an indepth program that not only teaches you about the functions of the 64, but also how to use them to design your own programs. Complete with two disks and a comprehensive lesson-by-lesson text manual, Basic, A Tutorial takes you from turning on the machine, through lessons on all the BASIC keywords and commands, to finally completing your own telephone/name and address database.

Some of the topics you will cover through actual hands-on experience include: the Commodore 64 keyboard; BASIC keywords, punctuation, program modes; on-screen editing and printing; mathematical operations; subroutines; string handling; system utilities; disk files; and using a printer.

Easy to use and fun to learn, no previous programming experience is required. Basic, A Tutorial is a program that can be used by anyone of any age. Even experienced programmers will find it to be a handy reference guide!

Sugg. Retail \$49.95

Microscope 64

This program is designed primarily for the programmer as a debugging tool for machine assembly programs.

Microscope 64 can be used simultaneously with an assembler in two ways: by loading the object program from within Microscope, or by loading Microscope from within the assembly.

Microscope performs a step-by-step execution of the assembly language program demonstrating computer operations in visual detail. The screen display allows the programmer to monitor the effects each instruction has upon the contents of the 6510 microprocessor's index and status registers, stack area, accumulator and variables. Print-outs are available of each screen. This detail aids the programmer in identifying trouble spots within the program. Instructions are identified on the screen in assembly language mnemonics.

Separate keys offer the binary forms of the contents of both x and y registers; a view of the condition of the status register; optional conversion from any decimal number to its hexadecimal representation; automatic conversion from any hexadecimal representation to its decimal number; and access to a help screen for easy reference during Microscope's operation.

Besides providing a direct approach to machine language debugging, Microscope 64 may also be employed as an effective learning tool to demonstrate the internal effects of a program instruction during its execution.

Sugg. Retail \$89.95

PRE-SCHOOL

Letters and Words Pre-school & up

The first program in Letters and Words provides practice for readers as well as non-readers in recognizing letters. The second program strengthens the ability to recognize words, for a wide range of skill levels.

Lots O' Letters provides practice in letter discrimination. Involving no reading, you simply press keys 1-4 in order to respond. Given a choice of three game set-ups, you practice matching letters. Within a group of four letters, you choose the one that is different, or choose one of four letters shown that matches the fifth. To strengthen visual discrimination, letters of similar configuration are often shown, such as OOCO. A running summary of letters needing practice is kept and your score is shown at the end.

Word Factory. As a beginning reader, you practice reading and identifying common words. There is a choice of working on your own words or three to six letter words chosen by the computer. A word factory produces scrambled letters. As they roll down a shoot you identify which ones match the word that appears at the top of the screen and try to get five words in the "good" box. At the end of each lesson a summary screen lists the number of good words in the "good" box and the number of good words in the "bad" box. With several levels of difficulty, this program provides excellent practice for a range of abilities.

Sugg. Retail \$24.95

Countdown Pre-school & up

Countdown is designed to teach basic academic skills. The child is introduced to mathematics and to the primary concepts of counting and number sequences. These two programs are especially noted for their colorful graphics, sounds and motivational positive reinforcement.

Count Em' uses colorful locomotive engines to help teach and test the ability to count objects. The computer randomly selects the number of trains that are to appear on screen, then asks the child to enter the number of trains displayed. Correct answers are rewarded and a performance summary is displayed at the end of the teaching session. The child is also notified of the numbers he had difficulty with, as a reminder of those he should practice. Count Em' contains two levels of difficulty that can be selected by the child.

What Number Is Missing? This program tests the child's knowledge of number sequences. The child will be tested on numbers from 1 to 99, which are divided into three skill levels: 1-9, 10-30, and 31-99. In What Number Is Missing?, the computer randomly selects and displays a sequence of three numbers. An empty box appears in place of one of those numbers and the number that is missing must be entered. Again, the child is rewarded for correct answers and is given a summary of performance at the end of the session. Response time is also tested.

Sugg. Retail \$29.95

Early Numbers Pre-school & up

Designed to reinforce primary skills, Early Numbers introduces the child to the mathematical functions of addition and subtraction. These lessons are presented through the counting of various colorful objects and are taught in the following sections:

Adding With Objects. Sets of objects and their corresponding numeric counterparts are used to teach young children how to add numbers up to 18. The number of objects are selected randomly by the computer as are the objects in the sets which may include pumpkins, sail boats, houses, blocks, or rollerskates. The child is shown the procedures for adding and then is presented with 10 addition problems. If an incorrect answer is entered, the problem is reinforced by requiring the child to attempt the problem again. The child is immediately rewarded for correct answers. At the end of the learning session, a summary of performance is displayed as well as the time it took to finish all ten problems.

Subtracting With Objects. Like Adding With Objects, this program also uses colorful graphics and the skill of counting in order to teach subtraction. A demonstration is given on subtraction using the 'take away' approach, then ten random problems are displayed with numbers up to 9. Immediate positive reinforcement is given for correct answers and a summary of performance is shown at the end of the session as review of problems to be practiced.

Sugg. Retail \$29.95

MATH

Early Math Elementary & up

Early Math offers two colorful programs designed to reinforce addition and subtraction skills. By adding numbers, you climb a mountain to wave a flag from the summit, or practice subtraction to score touchdowns on a football field. With a choice of many levels of difficulty, these programs offer increased challenge and hours of practice and fun.

Sum-It Mountain. Adding a sequence of numbers you are timed and must carry a flag to the top of a mountain. You then choose whether to add the same number each

time or a variety of numbers. As answers are entered, the flag moves up the colorful mountain, but one mistake and it falls back to the foot.

Two Minute Warning provides practice in subtracting a series of numbers. To score a touchdown in two minutes, you subtract yardage on a football field. Within one of three levels of difficulty, a series of problems is presented as a football player charges down the field. One fumble and the player starts over again. Working against time sharpens basic math skills.

Sugg. Retail \$29.95

Addition & Subtraction Elementary & up

Addition and Subtraction includes two programs that strengthen addition and subtraction skills. The first increases speed in addition. Racing against time is great fun and challenges older students as well. The second program is a colorful way to learn the addition and subtraction of numbers in columns. Both are excellent programs to provide skill practice at home.

Number Jumper improves speed in adding a series of single digit numbers. Starting with two addends, you work up to adding as many as nine at a time. You can select the amount of viewing time and whether to add a variety of numbers, or a series of the same number. On a track, a hurdler sprints over hurdles as you enter the sum of numbers. If your answer is incorrect, the runner misses a hurdle. The correct sum appears and you must start over again.

Column Right is an excellent teaching tool and provides practice in adding and subtracting numbers in columns while it increases understanding of place value. An explanation is given of regrouping to carry in addition or to borrow in subtraction. You then select an operation (+, -, $\times$, $\div$) and three problems are presented from one of the six skill levels. Solving problems against time, you can race to improve your mathematical speed and ability.

Sugg. Retail \$29.95

Multiplication & Division Elementary & up

Multiplication and Division includes three programs designed to reinforce multiplication and whole number division by playing baseball, pinball, and solving spinning number problems.

Math Spin provides excellent practice for learning multiplication facts. Trying to beat the computer, you must solve a sequence of problems within the level of difficulty selected. Random numbers spin in different boxes. You stop them and a problem to be solved is shown. This is a colorful way to practice basic math skills.

Last of the Ninth offers an exciting way to improve multiplication skills. A baseball diamond fills the screen. Selecting a level of difficulty each turn, you can try for a single hit, a double, triple or a home-run to score 11 runs and win the game. For single hits simple problems appear such as $8 \times 3 = _$. But multiplying by a double digit number can score a home-run ($74 \times 4 = _$).

Pin Ball I.Q. provides practice in finding the whole number part of the answer in a division problem. Remainders are not to be given. Problems increase in difficulty from simple ($45 \div 7$), to more complex ($278 \div 34$). For each correct answer a bumper lights up on a pinball machine. This lively program will provide hours of practice and greatly strengthen skills.

Sugg. Retail \$29.95

Math Pack Drills Mid-elementary & up

Math Pack Drills includes two programs that reinforce and improve mathematical operations through intriguing problems and captivating graphics. You will work with the four mathematical operations (+, -, $\times$, $\div$) in the first lesson, and estimate the number of enemy invaders in the second.

Math Bid is a betting game to improve skills in addition, subtraction, multiplication and division. A math monster appears on screen which you must wipe out by scoring 1,000 points. After choosing one operation to work with and selecting a level of problem difficulty, you solve three problems to win or lose points. This program is geared toward a wide range of skill levels.

Sector 5. This game gives practice in estimating a quantity by sight. As a space observer, you scan the screen for invaders and have ten seconds to estimate their number as they appear. You must try to average 80% accuracy in ten turns or the enemy will take over. Your percentage of accuracy is shown at the end when you receive your status: from "Need an eye exam" to "Bionic eyes".

Sugg. Retail \$29.95

Math Challenge I Elementary & up

Math Challenge I includes two programs to teach basic addition and multiplication facts as well as give practice in performing the two operations. You must create a puzzle in the first lesson. The second lesson places you in an Olympic event. Both provide real challenge and strengthen basic math skills.

Sum Fun is an exceptional game involving strategy and providing hours of practice in learning addition facts. The object is to create the greatest possible sums from combinations of randomly selected numbers. A grid of 16 squares is displayed and numbers between 1 - 9 appear. You must arrange numbers to create the highest possible sums in each row, column, diagonal, and in the four corners. The total of these sums is the answer. A summary including the highest possible sum and your percentage of success is shown at the end of the lesson.

Medal Winner is an Olympic event challenging you to arrange digits to make the highest possible product. Three random digits appear on the screen. You must combine two digits and multiply by the third. For example: 9, 5 and 3 can be 95×3 or 9×53 , etc. Choosing the combination that creates the highest product will win you a gold medal. The three best equations, awarded the gold, silver and bronze medals are listed.

Sugg. Retail \$29.95

Math Challenge II Upper elementary & up

This program contains three individual lessons designed to test your ability to estimate and calculate expressions. In the first lesson, you learn to recognize multiples of randomly selected numbers; in the second, you try to create math expressions; and in the third, you arrange given numbers in order to produce a specified result.

Fat Chance. In this program, the student learns to estimate and practice identifying multiples of given numbers. In a betting game, starting with 100 points, the student has ten turns to make or lose points.

Clay Pigeons. In this program, the student arranges numbers and operations (+, -, ×, ÷) to create math expressions from three given numbers. The resulting value must be as close to a given fourth number as possible ($9 \times 2 - 3 = 15$). The computer shows the 'expert' score at the end as well as your percentage of accuracy.

Math Golf. In this particularly challenging and entertaining program, the student arranges randomly selected numbers and operations into math expressions in order to shoot for the ideal hole-in-one. To do so, the resulting value must equal one, or as close to one as possible. As in golf, the lowest score wins.

Sugg. Retail \$29.95

Math Logic I Mid-elementary & up

In Math Logic I, to double your score and win, you compare numbers and use the symbols < or > or =; or to earn your points you solve story problems in addition and subtraction. Both are fun to play and are an excellent way to practice at home.

Greater Than/Less Than. The object of this program is to compare numbers and use the symbols to show whether they are greater than, less than, or equal to each other. Problems appear such as $(8+6) ? (19-4)$. After a careful explanation, you choose one of five levels of difficulty and to double your score, try to solve a series of problems. Working against time is an exciting way to practice solving equations and strengthen basic skills.

Give and Take Stories gives practice in solving story problems in addition and subtraction. There are nine levels of difficulty to choose from. A problem appears to be solved. Working against time, you enter answers and if incorrect, the problem is repeated. You may request the answer at any time. Your score is shown at the end.

Sugg. Retail \$29.95

Math Logic II Mid-elementary & up

In Math Logic II you build a robot by memorizing symbols for spare parts as visual memory is tested. In a bowling game, you choose operations and arrange numbers into an expression to try and create an equation as close to thirty as possible. Both these programs provide hours of fun and practice.

The Robot Factory tests recall of visual observation. The object is to build robots in three minutes by memorizing symbols for each spare part. One mistake destroys the robot. As a robot appears you are asked to choose the symbols for each part the robot needs. Your score and rating are shown.

Numbowl. This is an exercise in using the order of operations to create number expressions. In bowling, a perfect frame is thirty and you have ten turns to score as near thirty as possible each time. Numbers appear to be arranged into a given expression such as 8, 3 and 5 to be used in $_\square(_\square_\square)=___$. The result must be thirty or under, and a whole number. Your score is shown at the end, and percentage of accuracy. This program is both challenging and fun.

Sugg. Retail \$29.95

Graphic Math Mid-elementary & up

Graphic Math includes two lively programs that build skill and provide practice in reading and interpreting graphs. Two types of graphs are presented: bar and coordinate. Especially colorful, these programs will intrigue students and provide challenge for adults as well.

Bar Graph teaches and reinforces basic skills in reading and interpreting horizontal bar graphs. You will learn to make basic calculations and comparisons from these graphs in order to answer questions such as 'How many more caps does Tom need to have 50?', etc. Within a range of six levels of difficulty, three graphs are presented at one level, and if the questions are answered correctly, the next level begins. A summary of your performance is shown at the end.

Lasersect, a more difficult program, is an exciting space battle in which you gain practice in two areas: reading and interpreting coordinate graphs, plus making time-distance-speed calculations. An alien spaceship glides across a graph and is stopped by pressing a key. You then identify its locations by giving its X and Y coordinates. The computer then gives the distance of the ship and its rate of speed. From these factors, you calculate the lead time and fire your missile. If correct, the spaceship dramatically explodes. Accompanied by exciting sounds and graphics, this is a totally absorbing program.

Sugg. Retail \$24.95

Math Pack Elementary & up

Math Pack includes three programs designed to give you practice and test you in the basic operations of addition, subtraction, division, and multiplication. Playing against time provides challenge and fun for older students as well.

Math Shootout. In a western draw, you 'shoot it out' with Bad Math Mac by solving problems in the four basic operations. You have a choice of answering the problem within 1-9 seconds and you may also choose the level of difficulty. Get the answer correct and on time, and you win.

Slam Dunk. With super graphics, this program helps you in the four basic math operations. As a basketball player, you must try to solve as many problems as possible in three minutes. Answer correctly and you make the basket to win points for your team. Incorrect answers increases the other team's score. Five correct answers in a row win you a triumphant slamdunk! Accuracy and speed are stressed.

Caterpillar 500. The object is to practice solving simple whole number equations involving various operations. Presented with problems such as $(7 \times \text{---}) + 3 = 45$, you enter the missing number to race the caterpillar around the track to complete fifty laps. Various levels of difficulty can be selected.

Sugg. Retail \$29.95

Fraction Skills I Mid-elementary & up

Fraction Skills I includes two programs that will increase your understanding of fractions and whole numbers and how to write them. These programs provide an excellent and entertaining way to reinforce at home what is being taught in the classroom.

Branded increases basic understanding of fractions and how to write them. After the terms 'numerator' and 'denominator' are clearly explained, a herd of cattle appears; some are branded. You must enter a fraction to describe how many are. If correct, the herd increases. If wrong, no additional cattle are added. After ten turns, a summary of your performance is given. With especially colorful graphics and sound, this program will absorb you for hours of fraction practice.

On The Line. This program will help you understand mixed numbers and improper fractions, and gives practice in writing them. Football uniforms appear, each showing

a mixed number or a fraction. You must change each mixed number to an improper fraction or vice versa. If correct, 'Star' pops onto the uniform. If wrong, the whole uniform disappears. After 22 problems, a summary including percentage of success is shown. This is a great way to work with fractions and gain practice and skill in writing them.

Sugg. Retail \$24.95

Fraction Skills II Mid-elementary & up

Fraction Skills II includes two programs designed to increase your basic understanding of fractions. Providing quality instruction as well as practice, these are excellent teaching programs and an exciting way to learn more about fractions at home.

Pail Green helps you to understand and write equal fractions. After demonstrating a sample problem ($6/8 = ?/24$), methods of finding the missing number are explained. To empty a deep green well full of dollars within ten turns, you must enter the missing number for an equal fraction. Only correct answers fill the bucket with money and you can return to the explanation at any time for help. This is an excellent way to increase your fraction skills.

Parting Shots teaches how to write, then reduce fractions. After a careful explanation of reducing to lowest terms, the program presents a series of problems within one of three skill levels that you can select. A random number of letters appear on the screen; some are highlighted. 'What is the numerator?' 'What is the denominator?' By comparing the numbers highlighted to the total number shown, you must write a fraction describing it, then reduce it to lowest terms. A summary of your performance in this lesson is shown at the end.

Sugg. Retail \$29.95

Fraction Frenzy I Mid-elementary & up

In the first program you practice adding and subtracting fractions. In the second, to win a giant ice cream cone, you add mixed numbers. This is a great way to practice working with fractions.

Ups N' Downs provides practice in adding and subtracting proper fractions. To climb a set of colorful stairs, add fractions, to come down, subtract them. Within one of three levels of difficulty, a series of problems are presented to be solved step-by-step. When a mistake is made, the problem reappears. The summary shows where most help is needed and overall performance.

Tutti Frutti is an exercise in adding mixed numbers. The goal is to find five sums and win a giant ice cream cone. After a sample is shown of the steps involved in adding mixed numbers, a series of problems is presented to be solved. Each correct answer adds a new flavored layer to the spectacular cone.

Sugg. Retail \$29.95

Fraction Frenzy II Upper elementary & up

In the first lesson, you will help a weight lifter increase his performance by accurately subtracting mixed numbers; in the second lesson, your objective is to multiply fractions. The object of these lessons is to help you to increase your skill and understanding of fractions while solving problems in a sequence of steps.

Pumping Iron strengthens and tests your skill in subtracting mixed numbers. As you

solve a series of five problems, a weightlifter hoists a heavier weight each time. With three levels of difficulty, problems appear and you enter numerators and denominators in order to solve each one, step-by-step. Each step missed must be repeated and you can request the answer at any time as needed. A summary at the end of the program shows where you need the most practice and gives your overall performance.

Strike Out. In this lesson, you will practice multiplying fractions by removing common factors. After detailed directions on how to find common factors in numerators and denominators in order to reduce fractions, you will solve a series of problems. With five levels of difficulty, a range of skill and age levels are challenged. This is an excellent program for providing fraction practice at home.

Sugg. Retail \$29.95

Decimal Equivalents Upper elementary & up

To find lost treasure on a lawn, you practice writing fraction, decimal and percent names, in the first program. In the second, a bell ringer tests your ability to write fractions as percents.

Lawn of the Lost Rings. This will give you practice in writing fraction, decimal and percent names. Using a mower to find valuables in the lawn of "lost rings", your success will be shown. After a careful explanation of how to write a fraction as a decimal and then how to show a decimal as a percent, a series of fractions is presented for you to rewrite. Each time you are right, the correct percentage of lawn is mown, showing you your answer, and you discover the rings.

Bell Ringer. This program will help you identify certain fractions as percents. The object is to ring the percent bell. After a careful demonstration is given of how to change denominators to 100 in order to write percents, a group of windows appear, some with lit candles. You write a fraction to show how many had candles, and step-by-step, change it to a percent. If correct, the ringer will ring the bell. A summary shows your power rating at the end.

Sugg. Retail \$29.95

Decimals Mid-elementary & up

Developing decimal skills, you identify the largest number in a group of numbers or match fractions with their decimal names. Both provide clear instruction as well as an entertaining way to practice working with whole numbers, decimals and fractions. Help screens are easily accessed at any time during the lesson.

Lights Out will help you arrange whole numbers and decimals in order, by identifying a group of numbers from largest to smallest. Choosing to work with whole numbers or decimals, you are then timed. A building with nine windows appears; each window is lit and shows a number. You identify the largest number to put the window's light out. The program ends when all the lights are out. Working against time provides challenge for a range of levels.

Match Point will help you match fractions with their decimal names. Studying a number line marked in one set of numbers, you identify the matching names in the other. An example is shown of how a decimal such as .75 is changed to $\frac{3}{4}$. Problems are presented for you to change fractions to decimals, or the other way around, working against time. This is an excellent skill builder reinforcing decimal and fraction comprehension.

Sugg. Retail \$29.95

Advanced Math Elementary & up

Advanced Math offers quality programs designed for you to practice calculating estimated times of arrival and learn to identify different types of angles. With exciting graphics, the student directs flights cross-country and with clear visual explanations of angles, learns more about them.

E.T.A. Using the distance-rate-time formula, the student directs cross-country flights by calculating the time needed to get to seven different cities. A colorful control panel shows necessary information such as speeds, wind direction and distance. Taking into account head and tail winds, the student figures airspeed, then calculates the time. With dynamic graphics and sounds, planes take off and land. A summary of the student's performance is shown at the end.

Figuring The Angles is designed to increase the ability to recognize different types of angles and estimate sizes. First, a clear and visual explanation is given; different types of angles are shown such as acute, right, obtuse. As a series of angles appears, you enter an estimate of the size of each. The computer responds immediately with the correct answer so you can see exactly how accurate the estimate was. This is an excellent program that encourages creative thinking.

Sugg. Retail \$29.95

Factors & Multiples Mid-elementary & up

Within a simple and entertaining format, lively graphics hold your attention in these lessons while multiplication facts are reinforced.

Oil Well is an especially exciting program providing practice in recognizing prime numbers. In order to win \$1,000,000 you try to find the prime factors of eight randomly selected numbers. You can choose one of three levels of difficulty and may request the answer if you need to. Each of four oil rigs shows a prime number as an oil truck rolls across the screen. Problems appear such as $18 = _ \times _$ and you must then enter the factors. If correct, the honking truck loads up the truck with oil and the dollar gain is showed. Incorrect problems reappear for reinforcement and a summary of your performance is given at the end.

The L-C-M Machine. This programs teaches and tests your ability to find the least common multiple of a set of numbers. It provides practice in multiplication as well. You can select any of three levels of difficulty. A slot machine appears with revolving numbers. You stop them, try to find their least common denominator, and win the big jackpot if correct.

Sugg. Retail \$29.95

Measures N' Metrics Mid-elementary & up

Measures and Metrics includes two colorful programs that provide practice in identifying units of measure. Commanding a flying saucer, you identify sixteenths on a ruler; or on a track, practice making conversions using metric units of length, in order to jump distances. Each one is an excellent way to reinforce and practice at home, material being taught at school.

Ruler Dueler gives practice in identifying the sixteenths markings on a ruler. After a clear explanation of markings, down to sixteenths, a series of questions is presented. An inch of ruler fills the screen marked in sixteenths, with a letter over each mark.

To command a flying saucer, you read the ruler. When a fraction is shown, you press the letter identifying it and the letter is erased by a laser shot from a hovering spaceship.

Metric Jump. After an explanation of meter, decimeter, centimeter, and millimeter, you practice converting metric units of length into different but equal metric measures. In a long jump event, problems are presented as a jumper appears on track. A distance is given in one type of unit to be converted into another, specified by the computer. If correct, the jumper jumps, if wrong, he crashes. Five jumps are required to break the track record in one minute. Working against time provides challenge for a range of ages and abilities.

Sugg. Retail \$29.95

Prime & Composite Numbers Mid-elementary & up

This program includes two lessons that explain divisors and prime and composite numbers and provide practice in identifying them. In game format, you play tug-of-war or catch fish. These provide an excellent method of strengthening your skills at home while having fun.

Tug O' War. After a detailed explanation of divisors and how to find them, your understanding is tested by playing tug o' war with the computer. When a number is shown, you must enter divisors of that number and the knot in the rope moves, depending on the accuracy of your answer, to either your side or the computer's. When three games are won or lost, the lesson is over. A summary of your performance is displayed at the end.

Prime Fishing. This program gives practice in identifying numbers as either prime or composite. Information is given explaining both, which you may review at any time by pressing a key. Within three skill levels, ten problems are presented. A fish is caught with a number on it to be identified as either prime or composite. If correct, the student's catch increases. The summary of performance at the end rates your skill from 'Go to the fish market' to 'Expert angler.'

Sugg. Retail \$29.95

GRAMMAR

Reading & Rhyming Elementary & up

Reading and Rhyming includes three especially colorful programs reinforcing and testing basic reading, word recognition, and grammar skills. Designed for one student against the computer, these programs feature colorful graphics which will capture and hold your attention while basic skills are practiced.

Identifying Complete Sentences. A group of words appears on the screen for you to identify as either a complete or an incomplete sentence. Correct answers move two tractors across the screen in a race between you and the computer. At the end, a summary of your performance is given.

Catch the Rhyming Fish. The object is to identify and match rhyming words. As a word flashes on the screen three fish swim below, each tugging a different word. One of these words rhymes with the one above. You must lower your bait to catch the rhyming fish. Catch the correct fish and he lights up, but if the wrong word is selected, the boat will sink. Playing against time is exciting and helps you to sharpen basic word recognition skills.

Tachistoscope. This program tests visual memory as well as spelling skills. After reading a phrase flashed on the screen for a selected amount of viewing time, you must attempt to re-type it. A challenging program for practice in basic reading skills.
Sugg. Retail \$29.95

Nouns and Verbs Mid-elementary & up

In Nouns and Verbs you will enjoy the colorful graphics as you answer questions based on information presented. These programs can be used to introduce new material or to reinforce information being taught in school.

The Noun. In this program you will learn about nouns and practice identifying them. As a careful explanation of nouns is given, questions are asked and sentences shown in which to identify nouns. Your correct answers advance 'Bigfoot' up a snowy mountain toward a few surprises. Wrong problems are repeated and a summary of performance is shown at the end.

The Verb. As a careful explanation of verbs is presented defining action, linking, helping verbs, etc., you are asked a series of questions. Elaborate graphics shows Big Mack, the miner, in a harrowing underground adventure. After each correct answer, Big Mack advances toward his final goal. The ability to identify verbs and verb phrases is then tested. This is an excellent way to learn new material or to review what is being taught in school.

Sugg. Retail \$29.95

Adverbs & Adjectives Upper elementary & up

Adverbs and Adjectives offers two programs designed to increase your understanding of grammar concepts. Both are in-depth teaching programs with questions to test comprehension as you proceed through detailed explanations. This is a fun and colorful way to learn new material, or to practice what is being taught at school.

Adjectives provides a step-by-step explanation of adjectives and how they are used. You practice identifying them and the words they modify. In order to build a school house piece-by-piece, you must answer twelve questions based on information about adjectives as they appear on the screen. Played against time, this program provides real challenge.

Adverbs. Organized in much the same way as 'Adjectives', this program provides an in-depth explanation of adverbs. It displays randomly selected sentences then tests your comprehension by asking questions based on the information presented on screen. In this program, you practice identifying adverbs in order to help a little man reach and struggle up a ladder to get to a mysterious platform. This is an excellent program to help you learn about adverbs, or to supplement work being done in the classroom.

Sugg. Retail \$29.95

Subject Agreement Mid-elementary & up

In the first program of Subject Agreement you will race a car against the computer, and give the form of a missing verb to win the race. In the second program you will build a school by identifying subjects and predicates. These colorful programs provide an exciting way to practice basic grammar skills.

Agreement of Subject and Verb. In this lively program, two cars race on a track to the finish line as you choose between a single or plural verb in order to complete

each sentence shown on screen. If you choose the correct answers your car will gain speed; but should you select the wrong ones, the computer's car will move ahead. Working against time provides challenge for a range of abilities.

Subject and Predicate. After a detailed explanation is given, you practice identifying complete and simple subjects and predicates. In order to build a school piece by piece, twenty sentences are randomly selected by the computer. You must identify the complete or simple subjects or predicates, as requested by the computer. A summary at the end of the program shows your performance including your percentage grade.

Sugg. Retail \$29.95

Prepositions & Modifiers Upper elementary & up

The main objective of Prepositions & Modifiers is to give you practice in recognizing parts of sentences. To win 500 points, you must identify prepositions or practice locating misplaced modifiers. These provide an excellent way to reinforce the material you are learning in school.

The Preposition. In order to gain five hundred points and win the game, you need to identify the prepositions of randomly selected sentences that are displayed on screen. After a sentence is shown and you select the preposition that you believe is the answer, a box of whirling numbers appears and shows the number of points to be won or lost, depending on the accuracy of your answer. If you accumulate 500 points, a special bonus game follows. In a game format, this is a lively way to practice recognizing prepositions.

Misplaced or Dangling Modifiers. After modifiers are explained, a series of twenty sentences is presented on screen. You then need to identify which ones have misplaced or dangling modifiers in them, with each correct answer helping a little man march across the screen to climb a ladder to a mysterious platform. This program provides excellent practice for home learning and also contains an element of surprise.

Sugg. Retail \$29.95

READING REFERENCES

Reading References I Upper elementary & up

In Reading References I you are taught how to locate information from a dictionary and encyclopedia, then test your comprehension of the material. Both lessons can be used to learn new material, or played as games, are an excellent way to reinforce what is being taught in class.

Dictionary Guide Words. In this program, you practice using dictionary words in a matching game. After an explanation of guide words is displayed, two lists are shown; the first has words to be located; the second shows pairs of guide words representing the dictionary page on which a given word may be found. By moving an arrow, you match the individual words with appropriate guide words. Words missed and overall performance are included in the summary of performance at the end.

Encyclopedia Key Words. After being shown a detailed explanation of how to choose key words when looking up topics in an encyclopedia, you play against the computer in choosing key words to locate information. A topic is shown with a choice of three key words and as you choose one, the score is won or lost. Playing against time provides challenge for a range of grade levels.

Sugg. Retail \$29.95

Reading References II Mid-elementary & up

Reading References II includes three programs that teach and then test basic library skills. You are shown how to use card catalogs, basic library terms are worked with, and you practice putting books into alphabetical order. With colorful graphics and sounds, these programs provide excellent practice at home.

Card Catalog. After being given an explanation of card catalogs, you will practice finding information by title, author and subject. A series of questions begins, and you must select an appropriate catalog drawer. A summary of performance is shown at the end.

Library Terms. In this lesson, a variety of library terms such as Biography, Bibliography, Publisher, Non-fiction, Illustrator, is displayed, followed by a series of statements. You must match each statement with the term that best fits it. The chosen word is then dramatically eaten by the library machine. Working against time interests older students as well.

Putting Fiction Books In Alphabetical Order. You will practice alphabetizing books by their author. After an explanation of fiction books, and how they are listed, titles are displayed to be arranged alphabetically. Working against time challenges a range of ability levels.

Sugg. Retail \$29.95

SOCIAL STUDIES

Stars & Stripes Upper elementary & up

In one fascinating program you learn about political campaigns as you run for election. In the other, you review states and their capitals. These are excellent programs to supplement school studies and provide entertainment as well.

Hat in the Ring. Playing against another student, you will become familiar with some of the political decisions involved in running a presidential campaign. As either a Republican or Democratic candidate trying to win a majority of electoral votes, you decide how and where to use your nine resource units to strengthen your position. To change the political situation within a given state, you can commit resources to campaigning, domestic issues, etc. This game increases understanding of how campaigns are run.

States and Capitals. The object is to try to find the correct match for a state or a capital. As a wizard appears with a number on his hat, you are asked a question such as, "Boston is the capital of which state?" A correct answer erases the number. If wrong, the right answer is given and a summary shows your performance at the end. This is an excellent way to learn and review states and their capitals.

Sugg. Retail \$29.95

Pioneer Progress Upper elementary & up

Pioneer Progress includes two fascinating programs, each in an exciting adventure format. In this program you learn and are tested on historical information concerning the westward movement.

Trail West. As a pioneer, you head west with a number of basic supplies such as food, ammunition and clothing. The object is to travel 2,000 miles and maintain enough supplies to get there. The basic activities of hunting, traveling and self-defense use up, or add to your supplies. To hunt, you calculate a buffalo's approximate location

on screen, and shoot it to increase units of food supply. But hunting also uses up ammunition. To travel, a covered wagon is moved to a position on the screen by estimating relative direction and distances. Each move also diminishes units of supply. Surprise dramatic situations add to the reality and understanding of the move west.

Transcontinental Railroad teaches and tests about the building of the famous railroad. Through question/answer situations, you lay track in order for two trains to chug cross country to meet in the middle. To maintain units of supply in order to get there, you answer questions to gain supplies, or ask for more facts about the railroad. This program appeals to a wide range of ages.

Sugg. Retail \$24.95

Map Skills Mid-elementary & up

In game format, these lessons provide quality instruction as well as hours of practice and fun for a wide range of students.

U.S. Map provides three different ways to learn and practice identifying states. As a colorful map fills the screen, you may choose to fly over the country to see each state labeled, or choose to take a quiz and identify states as they are shown. Or, you may take a tour and travel to as many states as possible, only visiting each state once and traveling only between states that touch each other.

U.S. Cities. You can explore cities within two games in this lesson. In Grid Grapple, a map of the U.S. appears and you locate specific cities by identifying the coordinates of each one. Compass Caper is a game to practice identifying directions as you travel from one city to another in the U.S.

Small Town, USA. You learn to follow directions in a city as a map of a town shows blocks, streets, stores and city buildings. A chart is given with labels and abbreviations to use in your answers. Questions are asked about six buildings such as 'What street is it on?', 'How many blocks is it from one place to the next?', and so forth. Refer to the map to enter your answers to score.

Sugg. Retail \$24.95

History Flash Upper elementary & up

History Flash is designed to teach you about the past and present history of the United States. History Flash is a question-and-answer drill on American history facts and covers a complete variety of topics including explorers, presidents, inventors, wars, American women, black Americans, Indians, expansion, pioneers, and the constitution.

In History Flash, two players compete against each other in answering questions in a game-like format. The competition begins as the computer randomly selects five categories and gives each a point value. Each player then chooses the category he wishes to attempt and is given a question from that category. If he answers the question correctly, the number of points assigned to the category is added to his score. The selection of history categories and questions continue until one of the players gains a total of 500 points to win the game. A new set of categories will be randomly selected for each new game.

History Flash is a comprehensive lesson/practice for students currently studying American history in school and is also a fun and challenging history trivia game for the entire family.

Sugg. Retail \$29.95

SCIENCE

Measuring Power & Mass Upper elementary & up

In these two exciting programs you will work with the principle of power as it relates to work and time; and also use volume and density to calculate mass. While increasing understanding of scientific concepts, these programs will provide hours of fun and practice in applying equations.

Hay Day. The object is to understand the principle of power and its relationship to work and time. To find out how powerful you are, see how fast you can solve equations to lift eight bales of hay into a barn. You will be timed. A barn appears on screen with the height of the hay loft and the weight of the bale shown so you can use these factors in an equation to hoist the bale. If your answer is wrong, the bale drops. A summary gives details of performance.

Demolition Derby. The object is to understand the principle of mass, using volume and density. Terms such as 'mass', 'density', and 'volume' are defined and equations are shown to solve the problems. As information about two cars appears on screen, you work against time to calculate which one has more mass and will wreck the other. After each answer, two cars race across the screen, with the one having the most mass being demolished.

Sugg. Retail \$29.95

Measuring Energy Mid-elementary & up

In this program, the object is to figure how many watts and energy it takes to load blocks, and practice finding the horse power of different rivers. These programs increase your understanding of basic energy concepts and are an excellent way to learn new material at home, or reinforce information being taught at school.

Watts Up. To understand how watts are used to measure power, and the importance of time when used in measuring energy, two equations are applied: $\text{Watts} = \text{Volts} \times \text{Amps}$, and $\text{Energy} = \text{Watts} \times \text{Time}$. A truck appears with a conveyor belt and you are to figure how many watts are used to run the motor. Then you calculate the energy used to move the blocks onto the truck. This program provides excellent practice in solving basic equations and increases your understanding of energy.

River Run. In this program you measure the horsepower produced by different rivers and use the flow of river and volume of water to calculate the equation: $\text{Horsepower} = \text{Fall} \times \text{Flow} \div 10$. A dam appears with a river and the speed and flow of one river are given. Electricity flashes over a cable and lights a bulb if your answer is correct. Working against a time clock provides added challenge.

Sugg. Retail \$29.95

Weather I Upper elementary & up

Applying an equation, you must try to find how far away a thunderstorm is, or using a balloon, calculate the height of clouds or the time it takes a balloon to reach them. By applying equations to solve problems, you can gain practice as well as understanding of basic concepts in these colorful programs.

Thunderbolt. By using variations of the distance-rate-time formula, you will learn about basic elements of storms. To find the distance of a thunderbolt, you use the time between the flash and the thunder. Then using windspeed, calculate when the

rain will begin. A series of five problems are presented as a man chops wood, lightning flashes and thunder rolls. You may request the answer at any time and a summary of performance is shown at the end.

Wind Cloud. You will apply three equations to find either the height of a cloud or the time it takes for a balloon to reach it, and to calculate the speed of the wind pushing the cloud. The equations are $\text{Height} = \text{Time} \times 10$; $\text{Time} = \text{Height} \div 10$; and $\text{Wind Speed} = \text{Distance} \div \text{Time}$. While increasing understanding of how time and distance can be used to determine cloud height and wind speed, this is an excellent way to practice applying equations.

Sugg. Retail \$29.95

Weather II Upper elementary & up

Weather II focuses on the scientific reason for changes in seasons and also how clouds form. With exceptional graphics, almost any age will enjoy and learn from these instructional programs, although the lessons are geared toward higher elementary age. These programs provide a fun and exciting way to learn new material at home or to supplement school curriculum.

Dew Drop. You will be shown how to find the height of clouds by using ground temperature and dew point in the formula $H = T - D \times 1,000$. After a careful explanation of dew point (the temperature at which moisture in the air condenses) and how clouds are formed, you must answer seven problems appearing with colorful graphics. Played against time, this provides a real challenge for older students as well. As the understanding of concepts is increased, so are basic math skills.

Four Seasons. With outstanding illustrations, you will be shown why seasons change and why they differ from Northern to Southern hemisphere. At each step, graphics show visually what is being explained, as details of the earth's rotation and orbit around the sun are presented. A series of questions then test your understanding, and your score is given at the end.

Sugg. Retail \$29.95

Human Body I Upper elementary & up

Human Body I includes two programs that provide a lively way to learn new information about the digestive and circulatory systems, as well as be tested on it. They also offer excellent reinforcement at home of material being learned in school.

Blood Bank teaches then tests you about the human circulatory system. Put in charge of a blood bank, you have to maintain the supply of blood by answering questions about circulation. Correct answers increase the supply, wrong answers lose pints. And spelling counts! A running total of pints gained and lost as well as the total number in the blood bank is shown. Following ten questions, a summary of progress is shown. Set in a lively format, this program is a very effective method of learning new information.

Explorer's Digest. Based on the famous Lewis and Clark Expedition, you are to answer questions about the digestive system to keep the explorers supplied with food. Correct answers at a 'Supply Pick-Up' gain two months' supply but wrong ones cause a loss. To 'explore back country' and get more information about this system also deplete's food supply. The computer shows the amount of supplies as questions are answered. Maps appear to show the progress of the expedition.

Sugg. Retail \$29.95

Human Body II Upper elementary & up

Human Body II includes three programs designed to teach as well as test information about the respiratory and reproductive systems and daily calorie requirements.

Second Wind is designed to increase your understanding of the respiratory system. A runner appears on a track to run a mile in four minutes. By answering a series of ten questions about the respiratory system, running time increases or decreases. The runner's progress is shown each time he runs around the track.

Sunnyside Up. This program increases understanding of human reproduction. Raising chickens, you will try to increase egg production by answering questions about reproduction. Correct answers increase the number of eggs laid but incorrect answers lower the number and chickens may be lost or gained depending on the student's knowledge.

Calorie Power. The object of this program is to gain a usable understanding of daily calorie needs. You enter personal statistics, then the computer calculates your daily calorie requirement. Next you plan meals to meet that requirement. A chart is available to check calorie values. Your accuracy in meal planning is summarized at the end.

Sugg. Retail \$29.95

Basic Machines I Upper elementary & up

This program is an excellent teaching tool and can be used at home to learn and practice basic principles of first and second class levers. You will gain an understanding of levers and how they work by using the basic equation $D1/D2 = RT/ET$ to calculate answers.

Balance Beam. To understand the principle of first class levers and how they can be used, colorful graphics explain 'effort', 'fulcrum', and 'resistance'. Looking at the position of the fulcrum, you use the equation to decide whether the effort is $>$ or $<$ or $=$ to the resistance and enter the number of the missing factor. Correct answers are greeted by a little man who leaps and celebrates. If wrong, the problem reappears again for reinforcement and the answer will be given if requested.

Bull's Eye. Introducing and working with second class levers, this program is set up in very much the same way as 'Balance Beam', first providing a lesson and then allowing you to practice what has been learned. Using the same equation, you are to answer twenty questions. Correct answers are rewarded by a colorful arrow flying into the bull's eye. These programs will provide hours of quality instruction and fun at home.

Sugg. Retail \$29.95

Basic Machines II Upper elementary & up

Learning about third class levers, you use an equation to answer questions and fire a cannon. To measure work, you apply an equation and move blocks up steps. These programs are a great way to teach new material or to review it, as well as to give practice using equations.

Direct Hit. The object of this colorful program is to understand the principle of a third class lever and practice using an equation to answer questions about it. A diagram of the lever is shown and carefully explained. The equation $D1/D2 = ET/RT$ is given

to be used to see if weight is $<$ or $>$ or $=$ to force on the fixed fulcrum. As a series of twenty questions is presented, you type in answers to fire the cannon at the target. Your score is shown at the end.

Block Stacker. The objective is to understand the principle of work and how it can be measured. The equation $WORK = FORCE \times DISTANCE$ is carefully explained. To make Larry carry each of six blocks to the top of the steps, you use the equation to find the amount of work. You will be timed. Incorrect answers cause Larry big problems! Working against time provides challenge as you practice.

Sugg. Retail \$29.95

Earth Science I Upper elementary & up

Using sonar, you figure distances to blow up mines from submarines, or using shock waves, calculate the distance of earthquake epicenters. In colorful formats, both will provide hours of practice.

Torpedo Alley. This lively game increases the understanding of sonar and how it can be used as you figure the distance of seven mines and how to blow them up from three submarines. To find the distance, the speed of the beam echoing off mines is used in a given equation which is explained. A sub appears on screen with a mine and the information needed to work the equation. If correct, the sub fires and blows up the mine. Too many misses and the submarine explodes. This will provide hours of fun and practice in solving equations.

Earthquake. The object of this program is to find earthquake epicenters by using the shock waves that originate from them and comparing the arrival time of two types of waves. To figure the distance from three locations, you intersect three distances and select a numbered epicenter. After solving five problems, a summary shows the score. Working against time provides challenge as you practice solving equations.

Sugg. Retail \$24.95

Earth Science II Upper elementary & up

In Earth Science II you estimate to find how much water is needed to irrigate crops, solve equations to find volts and amperes, and interpret charts to calculate the growth of algae on a pond.

Alfalfa Millionaire. The object is to estimate, using scientific deduction, the amount of water needed for irrigation, to farm alfalfa. Evaporation changes the amount of water needed. You enter an estimate of the gallons needed to irrigate an acre. Trees pop up on the fields as the computer gives income earned and calculates your accuracy. Based on this response, you estimate again. This is a challenging way to increase accuracy in estimating.

Light Five. The object is to understand how volts and amperes are used and measured. Definitions and equations of volts, amperes and ohms are given and a series of problems are presented for you to solve during a timed lesson. Correct answers light up bulbs, reinforcing your ability to solve equations quickly and accurately.

The Green Machine increases your understanding of how varying temperatures can affect algae growth on a pond. Green algae will double over a certain number of days if uncontrolled. Charts help you determine water temperature, algae cover in square feet, or number of days the algae has grown. This lesson provides excellent practice in solving techniques based on the use of charted information.

Sugg. Retail \$29.95

ECONOMICS

Economic Values Upper elementary & up

Economic Values includes two programs which introduce basic economic concepts including the law of supply and demand, and the relation of time and money. In these lessons, you will gain a real understanding of basic economic concepts by applying them.

Maxi Taxi. This program relates time to money and gives practice in setting up a simple equation, performing calculations and making comparisons. The object is to calculate the earnings per hour of different cab drivers then choose which one earns the most. Three cabs appear on screen with information for each as to dollars earned per minute. After calculating the answer, the cabs zoom forward according to how much each one earns. After ten problems, 'Check-in time' shows percentage of business success and overall performance.

Parking Lot. The basic law of supply and demand is explained and applied in this lesson. To begin each session, the computer randomly and secretly selects the maximum price that can be charged in order to earn the most money in the running of a parking lot. Through estimation, you then try to discover that rate. The parking lot on screen fills up with cars according to the accuracy of your answer. Through trial and error, you estimate for twelve months and at the end of the session are shown your success rate.

Sugg. Retail \$29.95

Money Wise Upper elementary & up

Money Wise includes three exciting programs designed to teach you more about basic economic concepts.

Spell M-O-N-E-Y is a lesson which challenges you to earn and save money. By identifying the economic term needed to complete a statement and spelling it correctly, you earn a promotion and increase wages. In order to learn basic terms you may choose 'Get more education' and definitions will be shown, or you may request answers at any time, but each will cost you money. Yearly results are shown as you play.

Score City Motel. Using the law of supply and demand, you run a motel to make the highest profits. In ten turns, you try to figure the best rate to charge per room as a motel appears with blocks of rooms. You enter an estimate and the rooms fill up according to your accuracy. A summary at the end shows the best rates and your percentage of motel business.

The Ad Game. To run an advertising campaign, you compare vertical bar graphs showing age groups using a certain product and another showing how each group uses different media such as radio, TV, or newspapers. By comparing bar graphs, you answer a series of questions. After each one, your advertising success is shown, as well as the best choice possible.

Sugg. Retail \$29.95

Money Matters Mid-elementary & up

Money Matters offers two colorful programs dealing with money values and account balancing. The first is an introduction to money values which is played against time. The second develops skill in balancing bank accounts.

A Dollar and Change. You gain an understanding of money values and increase your ability to rapidly calculate change from a dollar bill using half-dollars, quarters, dimes and nickels. Judged on speed and accuracy, you have two minutes to make as much change for as many customers as possible by entering the amount of change as well as types of coins needed. A summary of performance includes a rating from 'Needs practice' to 'Excellent.' Fast-paced, this program is an excellent method for understanding monetary concepts.

Balancing Act increases your understanding of how a checking account works by balancing bank accounts. As a banker, you inspect bank accounts, checking deposits and withdrawals to locate errors in addition or subtraction. Each statement has five entries, and speed and accuracy count, as you may be promoted. After ten turns a summary shows performance, rating you from 'Unemployed' to 'President.' This program is great practice for balancing a check book.

Sugg. Retail \$29.95

FOREIGN LANGUAGES

Italian, French, Spanish & Latin

Italian, French, Spanish & Latin are exciting and challenging programs that can be used by students of any age, including adults, to begin their study of these languages. The programs consist of four sections of words including nouns, verbs, and words used in 'everyday' conversation such as numbers, colors, and dates; and also a section enabling self-selected words to be entered onto the disk.

After allowing you to select the group of words you wish to study, the program gives you the choice of entering your answers in either English or the foreign language. A word appears in the opposite language and awaits your answer which must contain the accurate placement of accent marks.

At the end of the session, a summary of your performance is displayed with incorrect answers highlighted. This summary includes both the English and foreign counterparts for each word and acts as an excellent means of review. All screen prompts are written in the language of study, encouraging comprehension of the language in practical use.

These programs provide an exciting and helpful method for reinforcing vocabulary currently being studied in class.

Sugg. Retail \$29.95 each

LOGIC & STRATEGY

At Wits End

At Wits End includes two programs that provide practice in creative problem solving, and increase and test the ability to make logical calculations and plan strategically. For two students, or one against the computer, these programs are in game format and are designed for any age level...even adults will be intrigued.

Pathways emphasizes the requirement for strategic planning as two competitors build a pathway from block to block on a grid. With three various pattern options with which to build the path, each player must avoid causing the pathway to run off the grid while simultaneously attempting to create a situation in which the other is

cornered to do just that.

Pin Alley. Based on a bowling alley concept, this is a lively program requiring quick response as well as skill in strategic planning. In this program, two players must knock down a randomly selected number of bowling pins, either one or two adjacent pins at a time. Using optimum logic, the object is to create a situation in which the winner will knock down the last pin. It's not as easy as it sounds, however, as the opponent's strategy may cause an obstacle, therefore requiring a series of quick and ever-changing decisions.

Sugg. Retail \$24.95

Wits At Work

Wits At Work includes two outstanding programs that will provide hours of challenge and fun for all ages. Elementary age levels can enjoy and learn, and adults will also be intrigued. Requiring strategy and planning, these programs encourage creative thought.

Huff and Puff. Based on a well-known Chinese game, this program involves two players or one against the computer. Two birthday cakes appear, each with a random number of flickering candles. Players take turns blowing out the candles and the one to blow out the last wins. Each turn, you may blow out the same number of candles on both cakes or any number on one cake. If playing alone, you select one of four levels of difficulty. Involving careful strategy, this program will fascinate the whole family.

Cubic. Based on a famous cube puzzle, this program has ten levels of difficulty, so players of any age can enjoy it. A cube, made up of 27 colored sub-cubes, appears on screen with the colors of all its sides scrambled. Using the fewest moves possible, you try to arrange the sides so each is a solid color.

Sugg. Retail \$24.95

Jigsaw Joggle

Jigsaw Joggle is designed to encourage creative thought in problem solving. Jigsaw Joggle tests and strengthens the ability to logically memorize and recall situations through the concept of spacial relations.

Designed for one player at any age level, Jigsaw Joggle contains a wide variety of pictures of exceptional color and detail. These pictures range from novice level 'basic objects' such as Ainsley Aichen's Aeroplane, Yardley Yarrowborough's Yacht, and Dudley Durwinkle's Car; to more difficult 'famous cities' and 'world attractions' such as Washington D.C., New York - The Big Apple, and Castle on the Rhine; to finally, expert level 'art masterpieces' such as Whistler's Mother and Grant Wood's American Gothic...and more!

When using Jigsaw Joggle, you must select any of these pictures and study it carefully taking into account minute details. Then erase the picture from the screen and try to correctly position various sections of the puzzle that the computer displays in order to rebuild the picture in as few attempts as possible.

Jigsaw Joggle can be used by anyone, of any age. It can help to improve memorization skills and logical thinking, as well as build increased awareness and appreciation of fine details. Most of all, it has the excitement, fun and challenge to keep the entire family interested for hours.

Sugg. Retail \$29.95

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SOFTWARE

PO Box 948, Waterbury, CT 06720

TOLL FREE
1-800-253-2600
In CT 203-621-9361